Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A pharmaceutical composition comprising a liposome ~~associated~~ formulated with at least one polypeptide that ~~comprising~~ comprises an amino acid sequence at least 80% identical to the amino acid sequence set forth in SEQ ID ~~No~~ NO : 2 ~~or a polypeptide fragment thereof~~, wherein ~~said polypeptide~~the composition is capable of ~~raising antibodies having binding specificity to the polypeptide of SEQ ID NO: 2~~inducing an immune response against *Neisseria*.

2. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein ~~said composition comprises a liposome associated with~~the at least one polypeptide ~~comprising~~ comprises an amino acid sequence at least 90% identical to the amino acid sequence set forth in SEQ ID ~~No~~ NO : 2.

3. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein ~~said composition comprises a liposome associated with~~the at least one polypeptide comprises an amino acid sequence at least 95% identical to the amino acid sequence set forth in ~~consisting of~~ SEQ ID ~~No~~ NO : 2 ~~or a fragment or analog thereof~~.

4. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein ~~said composition comprises a liposome associated with~~the at least one polypeptide ~~consisting of~~comprises the amino acid sequence set forth in SEQ ID ~~No~~ NO : 2.

5. (Currently Amended) A pharmaceutical composition comprising a liposome ~~associated~~ formulated with ~~at least one epitope bearing portion of~~ a polypeptide fragment comprising at least 15 contiguous amino acids of SEQ ID ~~No~~ NO : 2, wherein the composition is capable of inducing an immune response against *Neisseria* ~~or a fragment or analog thereof~~.

6. (Canceled)

7. (Currently Amended) ~~A~~ The pharmaceutical composition ~~comprising a liposome associated with at least one isolated polypeptide~~ according to claim 1, wherein said at least one isolated polypeptide is selected from:

~~(a) a polypeptide having at least 70% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(b) a polypeptide having at least 80% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(c) a polypeptide having at least 95% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(d) a polypeptide comprising SEQ ID No : 2 or a fragment thereof;~~

~~(e) the polypeptide of (a), (b), (c), or (d),~~ a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2 wherein the N-terminal ~~Met~~ methionine at residue 1 is deleted; and

~~(f) the~~ a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2 ~~of (a), (b), (c), (d), or (e)~~, wherein the secretory amino acid sequence is deleted~~,~~

~~wherein each of said polypeptide of (a) (f) is capable of raising antibodies having binding specificity to the polypeptide of SEQ ID NO: 2~~.

8. –10. (Canceled)

11. (Currently Amended) A pharmaceutical composition comprising a liposome ~~associated~~ formulated with a chimeric polypeptides ~~comprising~~ that comprises two or more ~~fragments~~ fragments of a polypeptide, which polypeptide comprises the amino acid sequence set forth in ~~of~~ SEQ ID ~~No~~ NO : 2, wherein each fragment is at least 15 amino acids, and wherein ~~said polypeptides~~the two or more fragments are linked ~~as~~ to ~~formed~~ form ~~a~~ the chimeric polypeptide, and wherein said ~~chimeric polypeptide~~composition is capable of ~~raising antibodies having binding specificity to the polypeptide of SEQ NO: 2~~inducing an immune response against *Neisseria*.

12. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein ~~at least two or more polypeptides of claim 1~~the composition comprises at least two polypeptides wherein each polypeptide comprises an amino acid sequence at least 80% identical to the amino acid sequence set forth in SEQ ID NO : 2, and wherein the at least two polypeptides are linked ~~as~~ to form a chimeric polypeptide.

13. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein said liposome comprises a lipids selected from a synthetic phospholipids, a bacterial phospholipids and~~/or~~ cholesterol.

14. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 13, wherein said liposome comprises a bacterial ~~lipids~~ phospholipid extracted from *E. coli*, N. *meningitidis*, or *N. lactamica*.

15. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 1, wherein said liposome comprises a lipids selected from a phosphatidyl ethers, ~~and~~ a phosphatidyl esters, a glycerides, a gangliosides, sphyngomyelin, and a steroids.

16. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 13, wherein ~~said lipids are~~the lipid is selected from:

1,2-Dilauroyl-*sn*-Glycero-3-Phosphate (DLPA),

Dimyristoyl-*sn*-Glycero-3-Phosphate (DMPA),

1,2-Dipalmitoyl-*sn*-Glycero-3-Phosphate (DPPA),

1,2-Distearoyl-*sn*-Glycero-3-Phosphate (DSPA),

1,2-Dioleoyl-*sn*-Glycero-3-Phosphate (DOPA),

1-Palmitoyl-2-Oleoyl-*sn*-Glycero-3-Phosphate (POPA),

1,2-Dilauroyl-*sn*-Glycero-3-Phosphocholine (DLPC),

1,2-Ditridecanoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Dimyristoyl-*sn*-Glycero-3-Phosphocholine (DMPC),

1,2-Dipentadecanoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Dipalmitoyl-*sn*-Glycero-3-Phosphocholine (DPPC),

1,2-Diheptadecanoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Distearoyl-*sn*-Glycero-3-Phosphocholine (DSPC),

1,2-Dimyristoleoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Dipalmitoleoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Dioleoyl-*sn*-Glycero-3-Phosphocholine (DOPC),

1-Myristoyl-2-Palmitoyl-*sn*-Glycero-3-Phosphocholine,

1-Myristoyl-2-Stearoyl-*sn*-Glycero-3-Phosphocholine,

1-Palmitoyl-2-Myristoyl-*sn*-Glycero-3-Phosphocholine,

1-Palmitoyl-2-Stearoyl-*sn*-Glycero-3-Phosphocholine,

1-Palmitoyl-2-Oleoyl-*sn*-Glycero-3 -Phosphocholine (POPC),

1-Palmitoyl-2-Linoleoyl-*sn*-Glycero-3-Phosphocholine,

1,2-Dilauroyl-*sn*-Glycero-3-Phosphoethanolamine (DLPE),

1,2-Dimyristoyl-*sn*-Glycero-3-Phosphoethanolamine (DMPE),

1,2-Dipalmitoyl-*sn*-Glycero-3-Phosphoethanolamine (DPPE),

1,2-Dipalmitoleoyl-*sn*-Glycero-3-Phosphoethanolamine,

1,2-Distearoyl-*sn*-Glycero-3-Phosphoethanolamine (DSPE),

1,2-Dioleoyl-*sn*-Glycero-3-Phosphoethanolamine (DOPE),

1-Palmitoyl-2-Oleoyl-*sn*-Glycero-3-Phosphoethanolamine (POPE),

1,2-Dilauroyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (DLPG),

1,2-Dimyristoyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (DMPG), 1,2-Dipalmitoyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (DPPG), 1,2-Distearoyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (DSPG),

1,2-Dioleoyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (DOPG),

1-Palmitoyl-2-Oleoyl-*sn*-Glycero-3-[Phospho-*RAC*-(1-glycerol)] (POPG),

1,2-Dilauroyl-*sn*-Glycero-3-[Phospho-L-Serine] (DLPS),

1,2-Dimyristoyl-*sn*-Glycero-3-[Phospho-L-Serine] (DMPS),

1,2-Dipalmitoyl-*sn*-Glycero-3-[Phospho-L-Serine] (DPPS),

1,2-Distearoyl-*sn*-Glycero-3-[Phospho-L-Serine] (DSPS),

1,2-Dioleoyl-*sn*-Glycero-3-[Phospho-L-Serine] (DOPS), and

1-Palmitoyl-2-Oleoyl-*sn*-Glycero-3-[Phospho-L-Serine] (POPS).

17. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 13, wherein said liposome further comprises at least ~~one~~ one adjuvant selected from Lipid A, monophosphoryl lipid A (MPLA), a lipopolysaccharides, and a cytokines.

18. (Currently Amended) ~~A~~ The pharmaceutical composition according to claim 13, wherein said liposome comprises 0 to 25% cholesterol.

19. (Currently Amended) ~~A~~ The pharmaceutical composition according to any one of claims 1-5, 7, 11, and 12~~claim 1~~, wherein said composition further comprises a pharmaceutically acceptable adjuvant.

20. (Currently Amended) A method for inducing an immune response against *N. meningitidis*, in a host, comprising administering to said host an ~~immunogenically~~

immunogenic, effective amount of a pharmaceutical composition according to claim 1 to elicit an immune response.

21. (Currently Amended) A method for preventing ~~and/~~or treating a *N. meningitidis* infection comprising administering to a host in need thereof a prophylactic or therapeutic amount of a pharmaceutical composition according to claim 1.

22. (Currently Amended) A method for preventing ~~and/~~or treating a neisserial infection caused by a *Neisseria* sp. selected from *N. meningitidis*, *N. gonorrhoeae*, *N. lactamica* and *N. polysaccharea*, said method comprising administering to a host in need thereof a prophylactic or therapeutic amount of a pharmaceutical composition according claim 1.

23. (Currently Amended) A method for the treatment or prophylaxis of meningitidis and ~~meningoccemia~~meningococcemia~~,~~ in a host, comprising administering to said host an effective amount of a pharmaceutical composition according to claim 1.

24. (Previously Presented) A method according to claim 20, wherein said host is a mammal.

25. (Original) A method according to claim 24, wherein said host is a human.

26. (Original) A method according to claim 25, wherein said host is an adult human.

27. (Currently Amended): A method according to claim 20 wherein ~~said~~ the pharmaceutical composition is ~~are~~ administered in unit dosage form of about 0.001 to 100 μg/kg (~~antigen~~polypeptide weight/body weight) with an interval of about 1 to 6 weeks ~~intervals~~ between immunizations.

28. –33. (Canceled)

34. (Currently Amended) ~~A~~ The pharmaceutical composition ~~of claim 7~~according to any one of claims 1-5, 7, 11, and 12, wherein said polypeptide is capable of ~~raising~~ eliciting antibodies ~~where~~ that are ~~bacteriocidal~~bactericidal.

35. (Currently Amended) ~~A~~ The pharmaceutical composition ~~comprising a liposome associated with at least one isolated polypeptide, wherein said isolated polypeptide is selected from~~according to any one of claims 1-5, 7, 11, and 12~~:~~

~~(a) a polypeptide having at least 70% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(b) a polypeptide having at least 80% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(c) a polypeptide having at least 95% identity over its entire length to the polypeptide of SEQ ID No : 2 or a fragment thereof;~~

~~(d) a polypeptide comprising SEQ ID No : 2 or a fragment thereof;~~

~~(e) the polypeptide of (a), (b), (c), or (d), wherein the N-terminal Met residue is deleted; and~~

~~(f) the polypeptide of (a), (b), (c), (d), or (e), wherein the secretory amino acid sequence is deleted,~~

wherein ~~each of said polypeptide of (a)-(f)~~the composition is capable of ~~raising~~ eliciting antibodies ~~having binding specificity to NspA~~that bind to *N. meningitidis* of any one of serogroup ~~serogroups~~ A, B, and C.